



1

# SEQUENCE LISTING

<110> GERRITSEN, MARY  
MCHRABAN, FAUD  
RASTELLI, LUCA

<120> DIFFERENTIALLY EXPRESSED GENES INVOLVED IN  
ANGIOGENESIS, THE POLYPEPTIDES THEREBY, AND METHODS OF  
USING THE SAME

<130> 10716/15

<140> 09/703,350

<141> 2000-10-31

<150> 60/196,802

<151> 2000-04-13

<160> 74

<170> PatentIn Ver. 2.1

<210> 1

<211> 1434

<212> DNA

<213> Sclerotinia sclerotiorum

<220>

<221> modified\_base

<222> (473)

<223> a, t, c, g, other or unknown

<220>

<221> modified\_base

<222> (599)

<223> a, t, c, g, other or unknown

<220>

<221> modified\_base

<222> (1427)

<223> a, t, c, g, other or unknown

<400> 1

ggccgcgcttt tcctggggaa gcggcgggcg ggggtggagca gccagctggg tccggggagc 60  
gccgcgcgcg ctcgatggg gtgttgaaaa gtctcctcta gagctttgga aggcgtgaatg 120  
cactaaacat gaagagcttg aaagcgaagt tcaggaagag tgacaccaat gaggtggaaca 180  
agaatgatga ccggctactg caggccgtgg agaatggaga tgcggagaag gtggcctcac 240  
tgctcggcaa gaaggggacc agtgccacca aacacgacag tgagggcaag accgctttcc 300  
atcttgctgc tgcaaaaagga cacgtggaat gcctcagggt catgattaca catggtgtgg 360  
atgtgacagc ccaagatact accggacaca gcgccttaca tctcgcagcc aagaacagcc 420  
accatgaatg catcaggaag ctgcttcagt ctaaagccc agccgaaagt gtngacagct 480  
ctgggaaaaac agctttacat tatgcagcgg ctgagggtg ccttcaagct gtgcagattc 540  
tctgcgaaca caagagcccc ataaacctca aagatttgga tgggaatata ccgctgctnc 600  
ttgctgtaca aaatggtcac agtgagatct gtcactttct cctggatcat ggagcagatg 660  
tcaattccag gaacaaaagt ggaagaactg ctctcatgct ggcctgtgag attggcagct 720  
ctaacgctgt ggaagcctta attaaaaagg gtgcagacct aaaccttgta gattctcttg 780  
gatacaatgc cttacattat tccaaactct cagaaaatgc aggaattcaa agccttctat 840  
tatcaaaaat ctctcaggat gctgatttaa agacccaac aaaaccaaag cagcatgacc 900

```

aagtctctaa aataagctca gaaagaagtg gaactccaaa aaaacgcaaa gctccaccac 960
ctcctatcag tcctacccag ttgagtgatg tctcttcccc aagatcaata acttcgactc 1020
cactatcggg aaaggaatcg gtattttttg ctgaaccacc cttcaaggct gagatcagtt 1080
ctatacgaga aaacaaagac agactaagtg acagtactac aggtgctgat agcttattgg 1140
atataagttc tgaagctgac caacaagatc ttctctctct attgcaagca aaagttgctt 1200
cccttacctt acacaataag gagttacaag ataaattaca ggccaaatca cccaaggagg 1260
cggaagcaga cctaagcttt gactcatacc attccaccca aactgacttg ggcccatccc 1320
tggggaaaaac ctggtgaaac ctctccccc gactccaaat catctccatc tgtcttaata 1380
cattcttttag gtaaatccac tactggcaat gatgtcagaa ttcagncaac tggc 1434

```

<210> 2

<211> 1458

<212> DNA

<213> Homo sapiens

<220>

<221> modified\_base

<222> (72)

<223> a, t, c, g, other or unknown

<400> 2

```

tctagatcct attggcaaaag ccacacttgt gaaatctacc ccggtcaatg taccatcag 60
tcagaaatctt antgatctgt ttgagaagat gggtcccgtg tcagtacagc agtctttggc 120
tgctataat cagaggaaaag cggatttggg taacagatca attgctcaga tgagagaagc 180
caccactttg gcaaatgggg tgctagcttc ccttaatctt ccagcagcaa ttgaagatgt 240
gtctggagac actgtacctc agtctatatt gactaaatcc agatctgtga ttgaacaggg 300
aggcatccag actgttgatc agttgattaa agaactgcct gaattactgc aacgaaatag 360
agaaatccta gatgagtcac taaggttgtt ggatgaagaa gaagcaaccg ataatgattt 420
aagagcaaaa ttaaggaac gttggcaaaag gacaccatcc aatgaactgt ataagccttt 480
aagagcagag ggaaccaact tcagaacagt ttagataaaa gctgtgcagg cagatggaca 540
agtgaagaa tggtaccagt ctcatcgtga caccatcgtg cttttgtgta agccagagcc 600
tgagctgaat gctgccatcc cttctgctaa tccagcaaag accatgcagg gcagtgaggt 660
tgtaaatgtc ttaaaatcct tattgtcaaa tcttgatgaa gtaagaagg aaagagagg 720
tctggagaat gacttgaaat ctgtgaattt tgacatgaca agcaagtttt tgacagccct 780
ggctcaagat ggtgtgataa atgaagaagc tctttctgtt actgaactag atcagagtcta 840
tgagggtctt acaactaaag tccaagaatc tctaaagaaa caggaggggac ttcttaaaaa 900
tattcaggtc tcacatcagg aattttcgaa aatgaaacaa tctaataatg aagctaactt 960
aagagaagaa gttttgaaga atttagctac tgcataatg aactttgttg aacttgtagc 1020
taatttgaag gaaggcacia agttttacaa tgagttgact gaaatcctgg tcagggtcca 1080
gaacaaatgc agtgatatag tttttgcacg gaagacagaa agagatgaac tcttaaagga 1140
cttgcaacaa agcattgcca gagaacctag tgctccttca attcctacac ctgcgtatca 1200
gtcctcacca gcaggaggac atgcaccaac tctcccaact ccagcgccaa gaaccatgcc 1260
gcctactaag cccagcccc cagccaggcc tccaccacct gtgcttccag caaatcgagc 1320
tccttctgct actgtccat ctccagtggg ggctgggact gctgcgccag ttccatcaac 1380
aaacgcctgg ctcaagctcct cctccacagg cgcaggggacc accctatccc acctatccag 1440
gatatcctgg gtattgcc

```

<210> 3

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 3  
gacgttctct cagcacgttc g 21

<210> 4  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 4  
cacctttccg gcttcattt c 21

<210> 5  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Probe

<400> 5  
cgaatgccgg cctctgcgg 19

<210> 6  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 6  
cgagtggcgg ctcaaaa 17

<210> 7  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 7  
ccgcagccga cctgtaga 18

<210> 8  
<211> 26  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Probe

<400> 8

tcagctgaag tggttcgttg cctcaa

26

<210> 9

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 9

ccttagctga ctccccaggt t

21

<210> 10

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 10

ctgcagcttc ccctcgatt

19

<210> 11

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Probe

<400> 11

cctgaacgag cgcctgggcc

20

<210> 12

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 12

gcatgaagga atttgaccat cc

22

<210> 13

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 13  
tctctcgttc agaaccctgg a 21

<210> 14  
<211> 26  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Probe

<400> 14  
cagacaccga tgagcctcat gacgtt 26

<210> 15  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 15  
gcctgttcac caagattgac ac 22

<210> 16  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 16  
gcctcgaagt cgctgctg 18

<210> 17  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Probe

<400> 17  
ttgcgcccga tgagatcacc g 21

<210> 18  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 18  
 ccaactctgc accgttctag g

21

<210> 19  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 19  
 ggtatgcatg gcatacgtaa gc

22

<210> 20  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Probe

<400> 20  
 ccgatggctg cctccggct

19

<210> 21  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 21  
 gggcatgggtg aggtttcatc t

21

<210> 22  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 22  
 tttagccca gaacgatgg

19

<210> 23  
<211> 26  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Probe  
  
<400> 23  
ccatggcgaa agttcaacat tccaca 26  
  
<210> 24  
<211> 22  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Primer  
  
<400> 24  
tctgagactg ccaaggtctt ca 22  
  
<210> 25  
<211> 22  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Primer  
  
<400> 25  
cagctggtat ttgtcggaca tc 22  
  
<210> 26  
<211> 33  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Probe  
  
<400> 26  
aggactagat cagaaatgca aagtccatcc tca 33  
  
<210> 27  
<211> 19  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Primer

<400> 27  
atccgcgcaa gatgttgac 19

<210> 28  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 28  
acctgtagat tcagtggtga ggaaa 25

<210> 29  
<211> 27  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Probe

<400> 29  
acaaggcttg cactacccaa gtctgca 27

<210> 30  
<211> 28  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 30  
tgtgtcatat caatttctgg attcataa 28

<210> 31  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 31  
ttgatccaac tgtgtccaga atg 23

<210> 32  
<211> 33  
<212> DNA  
<213> Artificial Sequence



<220>

<223> Description of Artificial Sequence: Probe

<400> 32

tgacttcggc atttatcctt tgctaattctt gct

33

<210> 33

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 33

cgacacgtgg gcacagg

17

<210> 34

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 34

agcttccttc cacgaaacca

20

<210> 35

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Probe

<400> 35

cagctgggtca cagggccac ttct

24

<210> 36

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 36

cgatgcttgc tggaggatag a

21

<210> 37

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 37

acactggtcg tccacactca ct

22

<210> 38

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Probe

<400> 38

aaagttccca aagtttgccg gctgc

25

<210> 39

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 39

actggtggtg gcagatgaca

20

<210> 40

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 40

tcactgtag caggtagcgc ttt

23

<210> 41

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Probe

<400> 41

atggccgcat tccacggtgc

20

<210> 42  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Primer  
  
<400> 42  
gaagccatct ctgaccgat c 21  
  
<210> 43  
<211> 16  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Primer  
  
<400> 43  
tccgccgaca cctcca 16  
  
<210> 44  
<211> 22  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Probe  
  
<400> 44  
ccacaccaat ggcgacgtca gc 22  
  
<210> 45  
<211> 20  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Primer  
  
<400> 45  
gcaggcaciaa gctgcagata 20  
  
<210> 46  
<211> 20  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Primer  
  
<400> 46  
cctgtggatg cattgattgc 20

<210> 47  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Probe

<400> 47  
 tccattcatc cttccgctct ctcagc

26

<210> 48  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 48  
 ccctttcaga tcatgttccc a

21

<210> 49  
 <211> 16  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 49  
 ggacggctgc gacgtc

16

<210> 50  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Probe

<400> 50  
 ccagtacacg atgctgcagt aggcca

26

<210> 51  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 51  
actgggccga gacaaataca a

21

<210> 52  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 52  
aatgcgctgc ttggtgttg

19

<210> 53  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Probe

<400> 53  
ccctgcgcca gatccggc

18

<210> 54  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 54  
ccagctgcta ctttgacatc ga

22

<210> 55  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 55  
ccattggacg ccctcagt

18

<210> 56  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Probe

<400> 56  
 gatgcgccgg tcacgcca 18

<210> 57  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 57  
 aataaaacag ccatgctccc a 21

<210> 58  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 58  
 ccttaagcca taagcacttc acc 23

<210> 59  
 <211> 27  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Probe

<400> 59  
 tgcattgattc gcaggtcagc tattttcc 27

<210> 60  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 60  
 aagcagcttc ctgatgcatt c 21

<210> 61  
 <211> 19  
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 61

cggacacagc gccttacat

19

<210> 62

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Probe

<400> 62

tcgcagccaa gaacagccac ca

22

<210> 63

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 63

cccagatctc cgacacatct g

21

<210> 64

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 64

gcgatgatgc cgtccag

17

<210> 65

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Probe

<400> 65

ccatggacaa cagtcgctcc ctgg

24

<210> 66  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 66  
gctgacaggc aggtgtttga a

21

<210> 67  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 67  
cgaagtagcc tgctttgcac t

21

<210> 68  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Probe

<400> 68  
tgtatccaca acacagccgg catctactg

29

<210> 69  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 69  
aaaatcttag aacttttggt gggaaacta

29

<210> 70  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 70  
ccttgacagt tggagaagcc a

21



<210> 71  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Probe

<400> 71  
 aaataattgg tcctttccca tcagttctgc a

31

<210> 72  
 <211> 172  
 <212> PRT  
 <213> Homo sapiens

<400> 72  
 Met Val Gly Pro Ala Pro Arg Arg Arg Leu Arg Pro Leu Ala Ala Leu  
 1 5 10 15  
 Ala Leu Val Leu Ala Leu Ala Pro Gly Leu Pro Thr Ala Arg Ala Gly  
 20 25 30  
 Gln Thr Pro Arg Pro Ala Glu Arg Gly Pro Pro Val Arg Leu Phe Thr  
 35 40 45  
 Glu Glu Glu Leu Ala Arg Thr Gly Gly Glu Glu Glu Asp Gln Pro Ile  
 50 55 60  
 Tyr Leu Ala Val Lys Gly Val Val Phe Asp Val Thr Ser Gly Lys Glu  
 65 70 75 80  
 Phe Tyr Gly Arg Gly Ala Pro Tyr Asn Ala Leu Thr Gly Lys Asp Ser  
 85 90 95  
 Thr Arg Gly Val Ala Lys Met Ser Leu Asp Pro Ala Asp Leu Thr His  
 100 105 110  
 Asp Thr Thr Gly Leu Thr Ala Lys Glu Leu Glu Ala Leu Asp Glu Val  
 115 120 125  
 Phe Thr Lys Val Tyr Lys Ala Lys Tyr Pro Ile Val Gly Tyr Thr Ala  
 130 135 140  
 Arg Arg Ile Leu Asn Glu Asp Gly Ser Pro Asn Leu Asp Phe Lys Pro  
 145 150 155 160  
 Glu Asp Gln Pro His Phe Asp Ile Lys Asp Glu Phe  
 165 170

<210> 73  
 <211> 101  
 <212> PRT  
 <213> Murine sp.

&lt;400&gt; 73

Gly Ala Gly Cys Gly Pro Ser Ala Leu Ser Leu Gly Trp Ala Asp Ala  
 1 5 10 15

Ala Pro Arg Arg Ala Arg Pro Pro Val Arg Leu Phe Thr Glu Glu Glu  
 20 25 30

Leu Ala Arg Tyr Gly Gly Glu Glu Glu Asp Gln Pro Ile Tyr Leu Ala  
 35 40 45

Val Glu Gly Val Val Phe Asp Val Thr Ser Gly Lys Glu Phe Tyr Gly  
 50 55 60

Arg Gly Ala Pro Tyr Asn Ala Leu Ala Gly Lys Asp Ser Ser Arg Gly  
 65 70 75 80

Val Ala Glu Met Ser Leu Asp Pro Ala Asp Leu Thr His Asp Thr Thr  
 85 90 95

Gly Leu Thr Ala Lys  
 100

&lt;210&gt; 74

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Rattus sp.

&lt;400&gt; 74

Arg Pro Leu Ala Ala Leu Ala Leu Ala Leu Val Arg Val Pro  
 1 5 10 15

Ser Ala Arg Ala Gly Gln Met Pro Arg Pro Ala Glu Arg Gly Pro Pro  
 20 25 30

Val Arg Leu Phe Thr Glu Glu Glu Leu Ala Arg Tyr Ser Gly Glu Glu  
 35 40 45

Glu Asp Gln Pro Ile Tyr Leu Ala Val Lys Gly Val Val Phe Asp Val  
 50 55 60

Thr Ser Gly Lys Glu Phe Tyr Gly Arg Gly Ala Pro Tyr Asn Ala Leu  
 65 70 75 80

Ala Gly Lys Asp Ser Ser Arg Gly Val Ala Lys Met Ser Leu Asp Pro  
 85 90 95

Ala Asp Leu Thr His Asp Ile Ser Gly Leu Thr Ala Lys  
 100 105